

INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2004/001251

A. CLASSIFICATION OF SUBJECT MATTER**IPC7 H01L 31/0256**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean Patents and applications for inventions, since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E, A	US 6736986 B2 (HELIOVOLT CORPORATION) 18 MAY 2004 see the whole documents	1-10
A	US 5567469 (MATSUSHITA ELECTRIC CO., LTD.) 22 OCTOBER 1996 see the whole documents	1-10
A	US 5976614 (MIDWEST RESEARCH INSTITUTE) 02 NOVEMBER 1999 see the abstract	1-10
A	US 5731031 (MIDWEST RESEARCH INSTITUTE) 24 MARCH 1998 see the abstract	1-10
A	JP 08-316230 A (MATSUSHITA ELECTRIC CO., LTD.) 29 NOVEMBER 1996 see the whole documents	1-10

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

17 SEPTEMBER 2004 (17.09.2004)

Date of mailing of the international search report

18 SEPTEMBER 2004 (18.09.2004)

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
920 Dunsan-dong, Seo-gu, Daejeon 302-701,
Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

KIM, Dong Yup

Telephone No. 82-42-481-5749



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2004/001251

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6736986 B2	18.05.2004	WO 2003026025 A2	27.03.2003
		WO 2003026022 A2	27.03.2003
		WO 2003026023 A2	27.03.2003
		WO 2003026024 A3	31.12.2003
		WO 2003026024 A2	27.03.2003
		WO 2003026022 A3	20.11.2003
		US 2003054662 AA	20.03.2003
		WO 2003026023 A3	15.04.2004
		WO 2003026025 A3	18.12.2003
		WO 2003026026 A3	18.12.2003
		WO 2003026028 A3	18.12.2003
		WO 2003026028 A2	27.03.2003
		WO 2003026026 A2	27.03.2003
US 5567469	22.10.1996	US 5567469	22.10.1996
		EP 595115 A1	04.05.1994
		EP 595115 B1	05.03.1997
		DE 69308465 C0	10.04.1997
		DE 69308465 T2	12.06.1997
		JP 6151930 A	31.05.1994
		JP 3064701 B	12.07.2000
US 5976614	02.11.1999	NONE	
US 5731031	24.03.1998	AU 1462197 A1	14.07.1997
		WO 9723004 A1	26.06.1997
JP 08-316230 A	29.11.1996	JP 3484259 B	06.01.2004
		EP 743686 A3	02.12.1998
		EP 743686 A2	20.11.1996
		US 5728231	17.03.1998